

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P545305

Luminaire Tested: **FMR-12-2-LD4-1HI-50-UNV-80-86-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-1HI-50-UNV-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

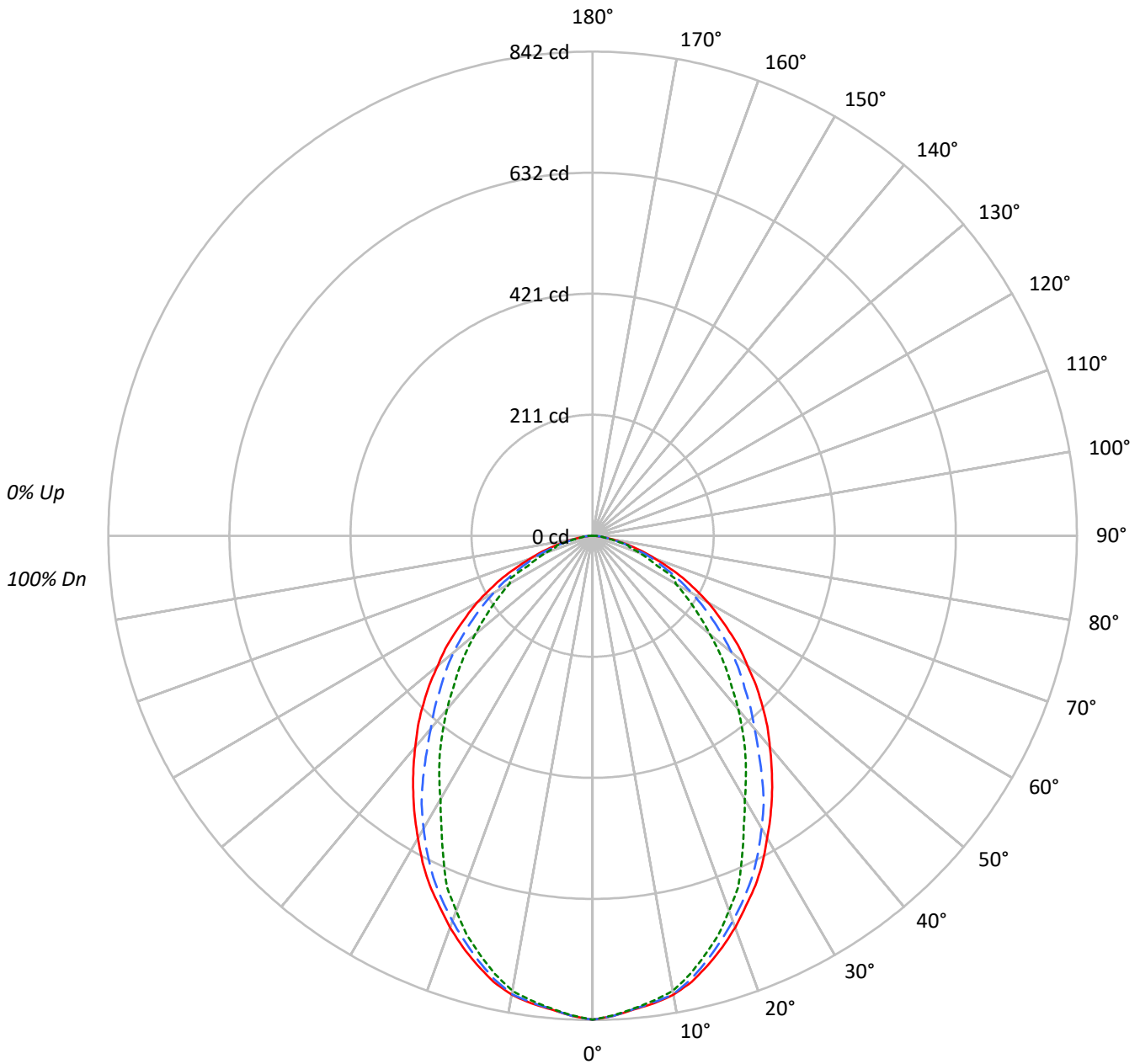
Lumens per Lamp: N/A
Luminaire Lumens: 1652.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4529	4529	4529
5°	4467	4462	4457
10°	4429	4423	4392
15°	4309	4266	4206
20°	4151	4084	3972
25°	3980	3894	3651
30°	3773	3652	3289
35°	3573	3375	3043
40°	3370	3076	2768
45°	3176	2844	2503
50°	2941	2639	2232
55°	2720	2392	2000
60°	2492	2137	1791
65°	2193	1871	1585
70°	1806	1638	1347
75°	1437	1254	1314
80°	964	905	843
85°	599	722	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	4.7
10°-20°	215.0	13.0
20°-30°	297.6	18.0
30°-40°	317.3	19.2
40°-50°	289.5	17.5
50°-60°	226.8	13.7
60°-70°	147.8	8.9
70°-80°	65.5	4.0
80°-90°	14.1	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	590.9	35.8
0°-40°	908.3	55.0
0°-60°	1424.6	86.2
0°-90°	1652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1652.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	827	826	826	825	825	78
15°	773	773	766	758	755	217
25°	670	666	656	632	615	308
35°	544	540	514	475	463	340
45°	417	409	374	342	329	321
55°	290	281	255	225	213	260
65°	172	162	147	150	124	170
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	841.5	841.5	841.5	841.5	841.5
2.5°	835.7	835.7	835.7	834.7	834.7
5°	826.9	825.9	825.9	825.0	825.0
7.5°	820.1	819.1	818.2	817.2	815.2
10°	810.4	810.4	809.4	804.5	803.6
12.5°	794.8	793.8	789.9	783.1	781.2
15°	773.4	773.4	765.6	757.8	754.9
17.5°	750.1	749.1	739.4	731.6	727.7
20°	724.8	722.8	713.1	700.4	693.6
22.5°	696.6	696.6	684.9	668.3	661.5
25°	670.3	666.4	655.7	632.3	614.8
27.5°	640.1	634.3	622.6	589.5	569.1
30°	607.1	604.1	587.6	544.8	529.2
32.5°	575.9	571.1	553.5	508.8	496.1
35°	543.8	539.9	513.7	474.7	463.1
37.5°	511.7	506.8	473.8	442.6	428.0
40°	479.6	473.8	437.8	409.6	394.0
42.5°	449.5	441.7	406.6	376.5	359.0
45°	417.3	408.6	373.6	342.4	328.8
47.5°	385.2	377.5	345.4	313.3	297.7
50°	351.2	344.4	315.2	283.1	266.6
52.5°	323.0	312.3	284.1	252.0	238.3
55°	289.9	281.2	254.9	224.7	213.1
57.5°	259.7	251.0	226.7	198.5	188.7
60°	231.5	218.9	198.5	174.1	166.4
62.5°	200.4	190.7	173.2	152.7	162.5
65°	172.2	162.5	146.9	149.8	124.5
67.5°	141.1	136.2	122.6	109.0	105.1
70°	114.8	109.0	104.1	89.5	85.6
72.5°	91.4	85.6	78.8	71.0	68.1
75°	69.1	64.2	60.3	57.4	63.2
77.5°	47.7	45.7	42.8	39.9	38.9
80°	31.1	30.2	29.2	28.2	27.2
82.5°	18.5	18.5	18.5	18.5	18.5
85°	9.7	10.7	11.7	12.6	13.6
87.5°	5.8	5.8	6.8	7.8	8.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)